

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of an interconnect system along MD 543 in Harford County. The following intersections shall be interconnected:

- MD 543 AND SB I-95 ON RAMP
- MD 543 AND NB I-95 OFF RAMP
- MD 543 AND MD 7
- MD 543 AND CHURCH CREEK RD
- MD 543 AND CHURCH CREEK RD / BRASS MILL RD

Video detection shall be installed at all of the intersections. Additionally, the Traffic Control Signal with street lighting, at the intersection of MD 543 and Church Creek Rd / Brass Mill Rd shall be reconstructed. The existing wood pole signal shall be replaced with a new mast arm signal. Countdown pedestrian signals with audible pushbuttons shall replace the existing pedestrian signals. MD 543 is assumed to run a north-south direction.

II. INTERSECTION OPERATION

MD 543 and Church Creek Rd / Brass Mill Rd

- The intersection shall continue to operate in a NEMA six-phase, fully-actuated mode, with the MD 543 approaches running concurrently. The Exclusive/Permissive left turn phases for both approaches of MD 543 shall remain in operation. The pedestrian phase with pushbutton actuation across the south leg of MD 543 shall now be a Countdown pedestrian phase with audible pushbuttons. The Church Creek Rd / Brass Mill Rd approaches shall also continue to run concurrently.
- A full-traffic-actuated, eight-phase controller with video interface, 2-wire Central Control Unit, and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.
- SHA signal shop shall install APS control unit into controller cabinet. The Contractor shall deliver the Control Unit and audible pushbuttons to the SHA Signal Shop for testing and programming. Contact Mr. Ed Rodenhizer (410) 787-7652.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by the S.H.A. Signal Shop. Contact Mr. Ed Rodenhizer at (410) 787-7652 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
- The Contractor shall contact Mr. Dan Sawyers (410) 527-1118 for Maryland Transportation Authority utility mark outs at least 72 hours prior to any excavation within the I-95 interchange.
- Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for the phone line installation. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

6. APS will function as follows:

FOR MD 543 (RIVERSIDE PARKWAY)

- When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be "Wait to cross Riverside Parkway"
- When WALK phase begins, the message will be a rapid tick which will last for the duration of the WALK phase.

The contact persons for District #4 are as follows:

Mr. Randall Scott
Assistant District Engineer - Traffic
Phone: (410) 321-2781

Mr. Steve Marciszewski
Assistant District Engineer - Maintenance
Phone: (410) 321-2761

Mr. Michael Pasquariello
Assistant District Engineer - Utility
Phone: (410) 321-2841

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

Mr. Ed Rodenhizer
Signal Shop
410-787-7652

Mr. Sonny Bailey
Sign Shop
410-787-7670

The power company representative is:
Mr. Steve Schneider
Baltimore Gas and Electric
7317 Parkway Drive South
Hanover, MD 21076
410-859-9310

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

ITEM NO.	DESCRIPTION	QUANTITY
9042	Controller ASC II with telemetry	1 EA
9044	Controller cabinet, size "6" (Includes one 4-channel amplifier).	1 EA
9086	Video detection interface equipment: 1-4 cameras (To be installed by signal shop).	2 EA
9087	Video detection interface equipment: 5-8 cameras	2 EA
9571	Sheet aluminum signs to consist of: (mast arm) D3-2 "(arrow) CHURCH CREEK RD / CHURCH CREEK RD (arrow)" sign, (variable x 16") (dual faced). D3-2 "(arrow) BRASS MILL RD / BRASS MILL RD (arrow)" sign, (variable x 16") (dual faced). D3-2 " RIVERSIDE PARKWAY" sign, (variable x 16") (dual faced). R3-5L "LEFT TURN ONLY" sign, (30" x 36") span wire mounted. GUIDE SHIELD ASSEMBLY (48"x75") pole mounted. M3-3 "SOUTH" (30"x15") M1-5 "MD 543" (48"x36") M6-1 "left arrow" (30"x24") GUIDE SHIELD ASSEMBLY (48"x75") pole mounted. M3-1 "NORTH" (30"x15") M1-5 "MD 543" (48"x36") M6-1 "left arrow" (30"x24") GUIDE SHIELD ASSEMBLY (30"x51") pole mounted. M3-1 "NORTH" (24"x12") M1-5 "MD 543" (30"x24") M6-1 "right arrow" (21"x15") GUIDE SHIELD ASSEMBLY (30"x51") pole mounted. M3-3 "SOUTH" (24"x12") M1-5 "MD 543" (30"x24") M6-1 "right arrow" (21"x15") Pedestrian education R10-4(1) mod sign. (Note: Sign to read "PUSHBUTTON TO CROSS RIVERSIDE PARKWAY")	123 SF 1 EA 1 EA 2 EA 1 EA 1 EA 1 EA 2 EA

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	3 EA
2002	Test Pit Excavation	8 C.Y.
5006	24" heat applied white permanent preformed thermoplastic pavement marking.	75 L.F.
6002	Standard type A combination curb and gutter 12" gutter pan 8" depth.	35 L.F.
6004	4" concrete sidewalk.	225 S.F.
6005	Detectable warning surfaces.	20 S.F.
8001	12" LED signal head section.	148 EA
8002	2 wire Central Control unit	1 EA
8004	8" LED signal head section.	33 EA
8007	Audible/tactile pedestrian pushbutton station & signs.	2 EA
8011	Embedded Metered service pedestal.	1 EA
8014	LED 16" countdown pedestrian signal head.	2 EA
8015	Mast arm pole and 38' mast arm any "T" dimension	1 EA
8016	Mast arm pole and 50' mast arm any "T" dimension	1 EA

EQUIPMENT LIST (CONT)

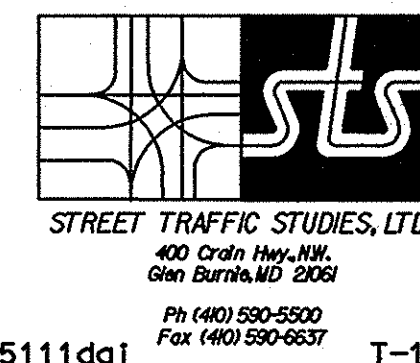
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
8018	Mast arm pole and 60' mast arm any "T" dimension	2 EA
8022	Remove and dispose of existing material and equipment per assignment.	1 EA
8026	Video detection arm.	4 EA
8027	Video detection camera & cable.	19 "T" EA
8030	Disconnect, pull back and reroute cables.	650 L.F.
8032	Schedule 80 rigid PVC conduit up tp 4" - bored.	455 L.F.
8033	Schedule 80 rigid PVC conduit up tp 4" - slotted.	420 L.F.
8034	Schedule 80 rigid PVC conduit up tp 4" - trenched.	3110 L.F.
8038	No. 6 AWG stranded bare copper ground wire.	750 L.F.
8043	Electrical cable 1-conductor No. 4 AWG THHN/THWN.	50 L.F.
8044	Furnish and install electrical handhole.	16 EA
8046	Install overhead sign.	123 S.F.
8051	12-pair communication cable jelly-filled (underground).	7300 L.F.
8052	250 watt HPS lamp & luminaire.	2 EA
8056	Electrical cable - 2 conductor (No. 14 AWG).	415 L.F.
8058	Electrical cable - 5 conductor (No. 14 AWG).	560 L.F.
8059	Electrical cable - 7 conductor (No. 14 AWG).	1390 L.F.
8060	Electrical cable - 2 conductor (No. 12 AWG) tray cable.	370 L.F.
8063	15' lighting arm on signal structure.	4 EA
8067	Install controller and cabinet base mount.	1 EA

C. EQUIPMENT TO BE REMOVED

SHA Forces shall remove the MD 543 / BRASS MILL RD controller and all auxiliary equipment from the any MD 543 system controller cabinet. The MD 543 / BRASS MILL RD cabinet and and all other removed signal materials are to become property of the contractor.

1 GREENLINE REVISION 7/10/07
TEDD APPROVAL *[Signature]* 7-12-07



5111dgi T-15

PLOTTED: 8/24/2007
FILE: 5111dgi

SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION			
MD 543: BRASS MILL RD TO I-95 SB RAMP INTERCONNECT PLAN			
GENERAL INFORMATION SHEET			
SCALE NONE	DATE 3/26/07	CONTRACT NO. AT9145185	
DESIGNED BY J. ALLEN	COUNTY HARFORD		
DRAWN BY ROB CICCHINI	LOGMILE 12054300.71		
CHECKED BY	TMS NO. H403		
F.A.P. NO.	TOD NO.		
TS NO. 3776	DRAWING NO. 9 OF 9	SHEET NO.	OF